wherein said latitudinal cross-section is located between said rear end and said at least one discontinuity, and

wherein said latitudinal cross section is substantially perpendicular to said longitudinal axis.

3. (Once amended) The speaker cone as claimed in claim 2, wherein at least one geometric mode resonance comprises an azimuthal mode resonance.

B1

4. (Once amended) The speaker cone as claimed in claim 2, wherein at least one geometric mode resonance comprises a radial mode resonance.

5. (Once amended) The speaker cone as claimed in claim 2, wherein at least one discontinuity comprises a first discontinuity,

wherein the first discontinuity comprises a radiating area that is substantially greater than a radiating area of a portion of the front end opposed to the first discontinuity.

6. (Once amended) The speaker cone as claimed in claim 5, wherein at least one discontinuity comprises the first discontinuity and a second discontinuity disposed adjacent to the first discontinuity on the front end, and

wherein a radius of the front end gradually changes when travelling along the front end from the first discontinuity to the second discontinuity.

B1 cont'd

7. (Once amended) The speaker cone as claimed in claim 5, wherein at least one discontinuity comprises the first discontinuity and a second discontinuity disposed adjacent to the first discontinuity on the front end, and

wherein a height of the front end gradually changes when travelling along the front end from the first discontinuity to the second discontinuity.

B2

9. (Once amended) The speaker cone as claimed in claim 1, wherein at least one discontinuity causes a first portion of the front end to be located in a perpendicular plane that is perpendicular to the longitudinal axis of the base portion and causes a second portion of the front end to not be located in the perpendicular plane.

10. (Once amended) The speaker cone as claimed in claim 1, wherein at least one discontinuity causes a radius of a first portion of the front end to be different than a radius of a second portion of the front end.

11. (Once amended) The speaker cone as claimed in claim 1, wherein at least one discontinuity contains a plurality of discontinuities.

B3

19. (Once amended) A speaker cone, comprising:

a base portion having a front end and a rear end,

wherein the front end contains a plurality of discontinuities that form a cyclical wave in the front end of the base portion,

B3 cancel

wherein a latitudinal cross-section of said base portion has a shape of a closed conic section,

wherein said latitudinal cross-section is located between said rear end and said at least one discontinuity, and

wherein said latitudinal cross section is substantially perpendicular to said longitudinal axis.

B4

28. (Once amended) A speaker cone, comprising:

a base portion having a front end and a rear end,

wherein the front end contains a plurality of discontinuities that form a cyclical wave in the front end of the base portion,

wherein the cyclical wave is a sine wave defined by the following equation:

$$r(\phi) = r_0 + (A)(\sin [(m\phi)/(2\pi)]),$$

wherein $r(\phi)$ is a distance vector from a reference point on a longitudinal axis of the base portion to the front end of the base portion, ϕ defines a revolution angle of the vector $r(\phi)$ with respect to the longitudinal axis, and m and r_0 are constants.

B5

34. (Once amended) A speaker cone, comprising:

a base portion having a front end and a rear end,

wherein the front end contains a plurality of discontinuities that form a cyclical wave in the front end of the base portion,

wherein a side of said base portion comprises a plurality of holes.

35. (Once amended) A speaker cone, comprising:

a base portion having a front end and a rear end,

wherein the front end contains a plurality of discontinuities that form a cyclical wave in the front end of the base portion,

wherein a side of said base portion comprises a plurality of slits.

36. (Once amended) A speaker cone, comprising:

a base portion having a front end and a rear end,

wherein the front end contains a plurality of discontinuities that form a cyclical wave in the front end of the base portion,

wherein a side of said base portion comprises a plurality of ribs.

Please add the following new claims:

B6

38. (New) The speaker cone as claimed in claim 28, wherein a side of said base portion comprises a plurality of holes.

39. (New) The speaker cone as claimed in claim 28, wherein a side of said base portion comprises a plurality of slits.

40. (New) The speaker cone as claimed in claim 28, wherein a side of said base portion comprises a plurality of ribs.

B6

41. (New) The speaker cone as claimed in claim 28, wherein a side of said base portion comprises a plurality of holes and a plurality of slits.

42. (New) A whizzer cone that reproduces high frequency sounds, comprising:

a base portion having a front end and a rear end,

wherein the front end contains a plurality of discontinuities that form a cyclical wave in the front end of the base portion,

wherein the cyclical wave is a sine wave defined by the following equation:

$$r(\phi) = r_0 + (A)(\sin[m\phi)/(2\pi)]),$$

wherein $r(\phi)$ is a distance vector from a reference point on a longitudinal axis of the base portion, ϕ defines a revolution angle of the vector $r(\phi)$ with respect to the longitudinal axis, and m and r_0 are constants.

43. (New) The speaker cone as claimed in claim 42, wherein m equals the number of discontinuities in the front end of the base portion.

44. (New) The speaker cone as claimed in claim 42, wherein r_0 approximately equals an average of the maximum value of the vector $r(\phi)$ and a minimum value of the vector $r(\phi)$.

B6

45. (New) The speaker cone as claimed in claim 42, further comprising a rear wall coupled to the rear end of the said base portion, wherein the reference point is contained in a plane containing the rear wall.

46. (New) The speaker cone as claimed in claim 45, wherein m equals the number of discontinuities in the front end of the base portion, and wherein r_0 approximately equals an average of the maximum value of the vector $r(\phi)$ and a minimum value of the vector $r(\phi)$.

47. (New) The speaker cone as claimed in claim 42, wherein a side of said base portion comprises a plurality of holes.

48. (New) The speaker cone as claimed in claim 42, wherein a side of said base portion comprises a plurality of slits.

49. (New) The speaker cone as claimed in claim 42, wherein a side of said base portion comprises a plurality of ribs.

50. (New) The speaker cone as claimed in claim 42, wherein a side of said base portion comprises a plurality of holes and a plurality of slits.

B6

51. (New) The speaker cone as claimed in claim 1, wherein the shape of the latitudinal cross-section comprises a circle.

52. (New) The speaker cone as claimed in claim 1, wherein substantially all latitudinal cross-sections of said base portion between said rear end and said at least one discontinuity respectively have shapes of closed conic sections, and

wherein said latitudinal cross-sections are substantially perpendicular to said longitudinal axis.

53. (New) The speaker cone as claimed in claim 52, wherein the shapes of the latitudinal cross-section respectively comprise circles.

54. (New) The speaker cone as claimed in claim 19, wherein the shape of the latitudinal cross-section comprises a circle.

55. (New) The speaker cone as claimed in claim 19, wherein substantially all latitudinal cross-sections of said base portion between said rear end and said at least one discontinuity respectively have shapes of closed conic sections, and

wherein said latitudinal cross-sections are substantially perpendicular to said longitudinal axis.

B6 wmd

56. (New) The speaker cone as claimed in claim 55, wherein the shapes of the latitudinal cross-section respectively comprise circles.

57. (New) The speaker cone as claimed in claim 1, wherein the base portion is designed to vibrate to produce sound of the speaker cone.

58. (New) The speaker cone as claimed in claim 19, wherein the base portion is designed to vibrate to produce sound of the speaker cone.